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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,280	07/23/2001	Patricia D. Lopez	10006190-1	2816

22879 7590 07/02/2004

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EXAMINER	
ALAVI, AMIR	
ART UNIT	**PAPER NUMBER**
2621	

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/911,280	Applicant(s) LOPEZ ET AL.	
	Examiner Amir Alavi	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6,11-13,16,19 and 20* is/are rejected.

7)☒ Claim(s) *4,5,7-10,14,15,17 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- Claims 1-3, 6, 11-13, 16 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hubel et al. (US 6,038,339).

Regarding claim 1, Hubel et al., disclose: an image acquisition unit that is capable of acquiring digital images (Please note, figure 1, element 110, in correlation to column 5, lines 54-58. As indicated a digital imaging system 100 containing an image capture unit 110); a correlation matrix memory coupled to the image acquisition unit (Please note, figure 1, element 126, in correlation to column 6, lines 8-9. As indicated correlation matrix 125 is stored in correlation matrix memory 126) and a processor coupled to the image acquisition unit and coupled to the correlation matrix memory, the processor comprising an image processing process that is capable of detecting color and illuminance of the acquired digital images based on color and illuminance of multiple images from actual image data stored in a color image database (Please note, figure 1, element 120, in correlation to column 6, lines 53-56 and column 5, lines 60-67. As indicated the illumination estimation unit 120 may be a processor, it's clear that since this illumination estimation unit corrects color, apparently it has detected color, this processor estimates the number and type of illuminants, in this regard, the matrix memory 126 is a color image database).

Regarding claim 2, Hubel et al., disclose, wherein the processor executes an illuminant detection training algorithm that bases control of illumination and color on a database storing actual illuminants, scenes, and subjects from representative image acquisition devices such as digital cameras and scanners (Please note, figure 1, in correlation to column 6, lines 15-25 and lines 58-63. Herein, the algorithm being wherein illuminant selection unit 128 operates on resulting vector 127 to estimate the

number and type of illuminants associated with captured image 115, as indicated utilization of a digital camera and a scanner).

Regarding claim 3, Hubel et al., disclose, wherein a correlation matrix contained within the correlation matrix memory (Please note, column 6, lines 8-9. As indicated a correlation matrix 125 is stored in correlation matrix memory 126), the correlation matrix being a two-dimensional matrix (Please note, figure 2, the correlation matrix 125 being a two dimensional matrix) comprising a first dimension corresponding to a set of candidate illuminants and a second dimension corresponding to chromaticities (Please note, column 7, lines 16-20. As indicated the correlation matrix building methodology includes a chromaticity and an illuminant dimensions), the illuminants and the chromaticities being selected based on data in the database storing actual illuminants, scenes, and subjects from representative image acquisition devices such as digital cameras and scanners (Please note, column 7, lines 10-13 and column 6, line 22. As indicated a correlation matrix memory is built to correlate the data from any image such as digital cameras and scanners to the set of possible scene illuminants).

Regarding claim 6, arguments analogous to those presented for claim 3 are applicable.

Regarding claim 11, arguments analogous to those presented for claims 1 and 3 are applicable.

Regarding claim 12, Hubel et al., disclose, wherein communicating acquired digital image data and illuminant and chromaticity data between an image acquisition device and the color image database (Please note, figure 1, elements 130, 135 and 140, in correlation to column 6, lines 1-2. As indicated color correction unit 130 provides corrected image 135 to output unit 140 for storage, display, printing, or the like).

Regarding claim 13, arguments analogous to those presented for claim 2 are applicable.

Regarding claim 16, arguments analogous to those presented for claim 6 are applicable.

Regarding claim 19, arguments analogous to those presented for claims 1 and 3 are applicable.

Regarding claim 20, arguments analogous to those presented for claim 2 are applicable.

Allowable Subject Matter

- Claims 4-5, 7-10, 14-15 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- The following is a statement of reasons for the indication of allowable subject matter: None of the prior art disclose or fairly suggest, wherein a position selection process that sets a position of the image vector to a first binary value if chromaticity corresponding to the position appears in the acquired image and a position de-selection process that resets a position of the image vector to a second binary value if chromaticity corresponding to the position fails to appear in the acquired image.

Other prior art cited

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hunter et al. (US 6,515,275 B1) is pertinent as teaching method and apparatus for determining the illumination type in a scene.

Brechner (US 6,477,269 B1) is pertinent as teaching method and system for searching for images based on color and shape of a selected image.

Komiya et al. (US 6,466,334 B1) is pertinent as teaching color reproducing device.

Schwartz (US 5,495,428) is pertinent as teaching method for determining color of an illuminant in an image based on histogram data.

Hara et al. (US 5,694,495) is pertinent as teaching image sensing device and image sensing method.

Mestha et al. (US 6,236,474 B1) is pertinent as teaching device independent color controller and method.

Contact Information

- Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amir Alavi whose telephone number is (703) 306-5913.
- The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 6:30 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

Any response to this action should be mailed to:

Assistant Commissioner for Patents

Washington, D.C. 20231

Or faxed to:

(703) 872-9306, ("draft" or "informal" communications should be clearly labeled to expedite delivery to Examiner)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application should be directed to the T.C. Customer Service Office whose telephone number is (703) 306-0377.

ANDREW W. JOHNS
PRIMARY EXAMINER

AA
Group Art Unit 2621
25 June 2004